Freshwater Biology

Volume 30, 1993

Edited by
A.G. Hildrew and C.R. Townsend

Blackwell Scientific Publications
OXFORD LONDON EDINBURGH BOSTON MELBOURNE
PARIS BERLIN VIENNA

Copyright and photocopying. © 1993 Blackwell Scientific Publications. Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by Blackwell Scientific Publications for libraries and other users registered with the Copyright Clearance Center (CCC), Transactional Reporting Service, provided that the stated base fee of $10.00 per copy is paid directly to the CCC, 27 Congress Street, Salem, MA 01970, U.S.A. This consent does not extend to other kinds of copying, such as copying for general distribution for advertising or promotional purposes, for creating new collective works or for resale. Special requests should be addressed to the Editor. 0046-5070/93. $10.00

Origination by Setrite Typesetters Ltd, Hong Kong
Printed in Great Britain by Burgess (Abingdon) Ltd

Contents

Volume 30, Number 1, August 1993

1 *S. C. Fritz, J. C. Kingston and D. R. Engstrom:* Quantitative trophic reconstruction from sedimentary diatom assemblages: a cautionary tale

25 *P. Silver Botts:* The impact of small chironomid grazers on epiphytic algal abundance and dispersion

35 *Janet M. Fisher and Marianne V. Moore:* Juvenile survival of a planktonic insect: effects of food limitation and predation

47 *Anne L. Davies and John H. R. Gee:* A simple periphyton sampler for algal biomass estimates in streams

53 *J. E. Serafy and R. M. Harrell:* Behavioural response of fishes to increasing pH and dissolved oxygen: field and laboratory observations

63 *John E. Titus and David T. Hoover:* Reproduction in two submersed macrophytes declines progressively at low pH

73 *Manfred Pöckl:* Reproductive potential and lifetime potential fecundity of the freshwater amphipods *Gammarus fossarum* and *G. roeseli* in Austrian streams and rivers

93 *Michael B. Griffith and Sue A. Perry:* Colonization and processing of leaf litter by macroinvertebrate shredders in streams of contrasting pH

105 *Saran Twombly:* Inter- and intrapopulational variation in time to metamorphosis in a freshwater copepod

119 *Barbara J. Downes, P. S. Lake and E. S. G. Schreiber:* Spatial variation in the distribution of stream invertebrates: implications of patchiness for models of community organization

133 *S. W. Wiseman, S. D. Cooper and T. L. Dudley:* The effects of trout on epibenthic odonate naiads in stream pools

147 *J. E. Vermaat and R. J. De Bruyne:* Factors limiting the distribution of submerged waterplants in the lowland River Vecht (The Netherlands)

159 *Irmgard Blindow, Gunner Andersson, Anders Hargeby and Stefan Johansson:* Long-term pattern of alternative stable states in two shallow eutrophic lakes

169 *Simon D. Rundle, Alan Jenkins and S. J. Ormerod:* Macroinvertebrate communities in streams in the Himalaya, Nepal

181 *Zhenkang Xu:* The infection of *Moina macrocopa* by a colonial peritrich, *Epistylis daphniae*, and its effects on the host

187 **Book Review; Short Notices**

Volume 30, Number 2, October 1993

189 *David Dudgeon:* The effects of spate-induced disturbance, predation and environmental complexity on macroinvertebrates in a tropical stream

199 *D. Dudley Williams and Nancy E. Williams:* The upstream/downstream movement paradox of lotic invertebrates: quantitative evidence from a Welsh mountain stream

219 *Luc de Meester and Hilde de Jager:* Hatching of *Daphnia* sexual eggs. I. Intraspecific differences in hatching responses of *D. magna* eggs

227 *Luc de Meester and Hilde de Jager:* Hatching of *Daphnia* sexual eggs. II. The effect of age and a second stimulus

235 *L. J. Tranvik and P. H. Tranvik:* A simple water sampler, and a chamber for *in situ* incubation of plankton samples at discrete depths

239 *P. E. Schmid:* Random patch dynamics of larval Chironomidae (Diptera) in the bed sediments of a gravel stream

257 *La-Orsri Sanoamuang:* The effect of temperature on morphology, life history and growth rate of *Filinia terminalis* (Plate) and *Filinia* cf. *pejleri* Hutchinson in culture

269 *Barbara Santer:* Potential importance of algae in the diet of adult *Cyclops vicinus*

279 *Thomas D. Shahady:* Impact of larval *Dorosoma* predation on *Daphnia parvula* dynamics
289 *Carol Folt, Peter C. Schulze and Karen Baumgartner:* Characterizing a zooplankton neighbourhood: small-scale patterns of association and abundance
301 *J. H. Kinross, N. Christofi, P. A. Read and R. Harriman:* Filamentous algal communities related to pH in streams in The Trossachs, Scotland
319 *Martin C. Davey:* Carbon and nitrogen dynamics in a maritime Antarctic stream
Opinion
331 *Nicolas Lamouroux:* Comment on 'The nature of the fluid boundary layer and the selection of parameters for benthic ecology' (Carling, 1992)
333 *P. A. Carling:* The nature of the fluid boundary layer and the selection of parameters for benthic ecology: reply to Lamouroux
337 **Book Reviews; Short Notices**
341 **Announcement**

Volume 30, Number 3, December 1993

343 *R. L. France:* Production and turnover of *Hyalella azteca* in central Ontario, Canada compared with other regions
351 *Peter R. Ode and Scott A. Wissinger:* Interaction between chemical and tactile cues in mayfly detection of stoneflies
359 *Oliver Scholz and Paul I. Boon:* Biofilm development and extracellular enzyme activities on wood in billabongs of south-eastern Australia
369 *Jiří Nedoma, Petra Porcalová, Jaroslava Komárková and Vojtěch Vyhnálek:* A seasonal study of phosphorus deficiency in a eutrophic reservoir
377 *Carolyn W. Burns and John J. Gilbert:* Predation on ciliates by freshwater calanoid copepods: rates of predation and relative vulnerabilities of prey
395 *J. M. Schmid-Araya:* Spatial distribution and population dynamics of a benthic rotifer, *Embata laticeps* (Murray) (Rotifer, Bdelloidea) in the bed sediments of a gravel brook
409 *J. N. Jarrett, M. B. Cutler, J. P. Ebersole and W. G. Hagar:* Seasonal variation in pH and alkalinity and recruitment of sunfish populations
419 *Ulrike-G. Berninger, Stephen A. Wickham and Bland Finlay:* Trophic coupling within the microbial food web: a study with fine temporal resolution in a eutrophic freshwater ecosystem
433 *Herwig Stibor and Winfried Lampert:* Estimating the size at maturity in field populations of *Daphnia* (Cladocera)
439 *Annette Sode and Peter Wiberg-Larsen:* Dispersal of adult Trichoptera at a Danish forest brook
447 *John H. R. Gee and Catherine A. Duigan:* The limnology of Lac d'Ifni (High Atlas Mountains, Morocco), an unusually productive mountain lake
Opinion
463 *A. Frutiger and J.-L. Schib:* Limitations of FST hemispheres in lotic benthos research
475 *B. Statzner:* Response to Frutiger & Schib (1993) 'Limitations of FST hemispheres in lotic benthos research'
485 *A. Frutiger:* Reply to Statzner
487 **Book Reviews**
489 **Index to Volume 30**